

Dec 7-1908

# THE CONDOR

A Magazine of Western  
Ornithology



Volume X November-December, 1908 Number 6



COOPER ORNITHOLOGICAL CLUB

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Entered as second-class matter February, 1908, at the post office at Los Angeles (Hollywood Station), California, under Act of Congress of March 3, 1879.

Issued from The Office of The Condor, First National Bank Building, Hollywood, Cal.

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**Stamford, Connecticut**

**Managing Editor.**





A CORNER IN THE COLONY OF CASPIAN TERNS ON LOWER KLAMATH LAKE

Photo by Finley and Bohman

# THE CONDOR

## A MAGAZINE OF WESTERN ORNITHOLOGY.



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Volume X

November-December 1908

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### RETROSPECTIVE

By HENRY B. KAEDING

WITH the present issue the CONDOR closes its first decade, and perhaps we may be pardoned if we occupy a few moments of our readers' time in looking back or planning ahead. Ten years: a long time for some of us, yet all too short for others. Ten years have wrought their changes in all our lives and left their impress on the ornithological work of the Pacific Coast; and it is with no small feeling of pride that the CONDOR, thru and with its mother organization, the Cooper Club realizes the great strides that have been made in the promulgation of bird knowledge and protection, and the share that we have all had in the work.

When the Cooper Club was formed in June, 1893, by four earnest bird students in San Jose, little did anyone think of the significance of the movement started, or the extent and magnitude that would be reached in the space of fifteen years. Those were the days when H. R. Taylor was publishing the old *Nidiologist*, and it was made the official organ of the Club. The first officers of the Club were: President, W. H. Osgood; Vice-President, H. R. Painton; Secretary, Chester Barlow; and Treasurer, F. A. Schneider. Monthly meetings were held, and papers read and later published in the "Nid", as the paper was affectionately called.

The "Nid" filled a long felt want: prior to its issuance we had no publication on the Coast of its kind, and a deep debt of gratitude is due it and its publisher for the impetus it gave to ornithology among men who had hitherto been working independently. By means of the "Nid", and the Cooper Club, we were enabled to get together, to communicate to each other our ideas and discoveries, and to systematize our work.

The Club grew slowly month by month; by the end of the year 1893 there were seventeen members and by the first anniversary of the Club there were twenty-five; and the membership kept growing till by the end of 1896 we had sixty-seven members. The systematic work of the Club up to that time had been confined to the life histories of the Vireos and Wrens of California, and the general trend of the papers on all subjects was along the lines of the recording of observations, migration and nesting dates. Notable among the papers presented were records from

Guadalupe Island and other Lower California points that at that time were little known; the nesting of the Western Evening Grosbeak was for the first time authentically described and a superb photo in colors of the nest and eggs was published as a supplement to the "Nid"; the nesting of the White-throated Swift was also described for the first time authentically. Numerous photos were published illustrating papers and articles, and in general the close of 1896 showed a very satisfactory record. But better than all the work done and records made was the under-current of co-operation that had set its permanent tide in movement to carry upward to success the work of ornithology in California; we couldn't see it then, but it is plain enough when we look back and muse on the old days, and when we compare them with the present.

With the May, 1897, issue, the old "Nid" suspended publication after nearly four years' life, and the Cooper Club was without an official organ for over a year; but the necessity for such being obvious, the necessary steps were taken during the fall of 1898 for the publication of a Club Bulletin, and at the annual meeting of January, 1899, the final resolutions establishing the Bulletin were passed and the initial number appeared at once. This time between the cessation of the *Nidologist* and the issuance of the Club Bulletin was really the critical period of the Cooper Club's existence, and but for the tireless efforts of certain members, among whom shine out Barlow, Emerson, Grinnell, McGregor, and Taylor, the interest of the members was in a fair way to cool. More than this, the older and gray-headed members of the Club scoffed at the idea of maintaining an official Bulletin and predicted disaster; but they were in the minority and disregarded, and time has shown them wrong.

So with the January, 1899, issue the first number of the Bulletin of the Cooper Ornithological Club was launched, and it marked a new era for the Club and for California ornithology. A new tone was manifest at once; it was as if we had all come to a realization of the fact that we were engaged in earnest work and had assumed responsibilities that we must carry to a successful issue; we had started something in the face of opposition that our pride spurred us to finish. Besides, we were growing older; and the papers published showed at once a more serious tone and an absence of a flippancy that had no place in a scientific journal. The description of new species began, and to Richard C. McGregor belongs the honor of describing the first new race published in the new Bulletin; four new birds were described during the first year of the Bulletin and many valuable records of rare and little known species were given to the world.

Chester Barlow—responsible for the formation of the Cooper Club nearly six years before and strongest advocate of the new Bulletin, main-stay and hardest worker of us all—shouldered the brunt of the work and assumed the editorship of the new journal; H. R. Taylor and Howard Robertson were his assistants and Don Cohen and A. I. McCormick handled the business end. Gradually the quality of the journal bettered; half-tones began to be used in profusion and the size of the issues increased almost monthly; things went merrily as a wedding bell till November 6, 1902; and then, a bolt out of a clear sky, came the news of Barlow's death. I need not dilate on the extent of our loss; to know Barlow was to love him and we all knew him. Personally his place can never be filled in our hearts; but as far as the CONDOR was concerned, Walter Fisher stepped into the editor's chair and held it for three years and his work speaks for him stronger than can I. On his voluntary retirement at the end of 1905, Mr. Joseph Grinnell took the reins and is the present incumbent.

One has but to run over the files of the Bulletin of the Cooper Ornithological

Club, called the *CONDOR* from 1900 on, to note the almost monthly improvement in tone, typography, size and general excellence. Local lists soon became prominent and their value cannot be overdrawn. The practice of listing species by their scientific names, giving the vernacular name the minor place, soon became common and marked a radical step for the better. In the issue of November, 1900, a typographical scheme was adopted of printing the scientific name of the species in heavy type and the vernacular name in light small capitals that can hardly be improved upon, and it is hoped that this method will be made permanent in the future. Reference to pages 136-138 of that issue will show that no subsequent typographical scheme has been quite so successful in impressing upon the eye at first glance the name of a species sought; and it may not be irrelevant here to once more urge upon writers to allow no article to enter the pages of the *CONDOR* in which the scientific name of the species is not given. True that a text of a popular article, cumbered with scientific names, may be made bombastic and clumsy in the extreme, but it must be remembered that our work is scientific first and popular second; and if a species is mentioned in such a manner that it constitutes a record or may constitute one, the giving of the scientific name is a debt the author owes to ornithology. This is a subject that has been discussed from many points of view in the *CONDOR*, and the delightful Sierran gem of J. M. Welch has been used as an illustration of a type of article whose poetic charm would have been entirely destroyed by the introduction of a single Latin name (Vol. I, pp. 108-111). True; yet the Editor thought advisable to append a foot-note giving the locality written about, and had the author appended a foot-note giving not only the locality and date of his notes but the Latin names of the species referred to as well, the poesy of the writing would have been impaired not one whit, while the *record* would have stood for all time as of some value to ornithology.

This point cannot be more strikingly shown than by an inspection of the September issue of the *CONDOR* of the present year (Vol. X, No. 5). Of ten articles printed in this issue that deal with records of species, no less than three—nearly one-third—are entirely valueless as records simply because the species are recorded by the vernacular name alone. These are not articles that can be classed as "prose poems" in any sense whatever; they are *records*—records of value and interest; records of life history phases, records of breeding ranges of species; yet they will never get beyond the pages of the *CONDOR*, but, to quote Robert Ridgway in a letter of some years ago (March, 1900), "must remain buried where they now are". We are working in ornithology for the love of it—not for money; our only reward is the satisfaction of work well done, and the name we may make for ourselves; but no one can hope to see his records quoted or passed on, to the credit of his name, unless he makes those records complete and in the manner approved of by the scientific world.

In May, 1902, the incomparable photographs by Finley and Bohlman commenced to appear and marked another epoch in advancement. Field workers began to realize the immense value of good photographs, and where these had been hitherto largely confined to the photographing of nests and eggs, a new impetus was given to the photographing of live birds in their native haunts that was evidenced by the increased number of very excellent half-tones of this nature that made their appearance in the *CONDOR* during 1903 and thereafter. Particular mention must be made of the really remarkable series of photographs made by Walter K. Fisher on Laysan Island.

The high grade of half-tones that formed the illustrations in the *CONDOR* at this time rendered necessary the best grade of paper, and with increased excellence

in character of writings and typographically, the journal soon became not only an abiding place of valuable scientific record but a thing of beauty and a joy forever. From this time to the present the general tone of the CONDOR has been steadily improving and the members of the Cooper Club have just reason to feel proud of their work.

During the last ten years, the ornithological articles in the CONDOR have, with the special publications of the Cooper Club, constituted practically all that has been published on the Pacific Coast; in this space of time there has been less than a dozen other articles on ornithology printed here, with the exception of the publications of the Fish and Game Commission.

One thing that has always hampered the work of active ornithologists on the Pacific Coast has been the lack of access to any large collection of birds to work with. Workers have had only their own private collections, supplemented by material borrowed from fellow members and Eastern museums. There is on foot, however, a project to establish at a central point a large collection of birds; the plan will undoubtedly be described in due course, and all I need to say on the matter is to point out to Club members the enormous advantage that will accrue to all if this can be done. All the improvement and good work we have done in the Club has been due to co-operation; if we co-operate by combining collections the same will hold true.

Before we turn our backs to the past and face the future we must mention our absent members—just three or four of them: Barlow, Dr. Cooper, Walter Bryant, Slevin, Miss Mollie Bryan—they all had the interests of the Club and the CONDOR at heart and ever present in their minds. They strove always for the betterment of the work and the advancement of knowledge and their loss was keenly felt by all; their genial spirits are with us always and our memories of them should carry us over many a dark spot.

And now, what are we going to make of the CONDOR in the ten years to come? Where is there room for improvement? To answer these questions requires some thought, and frankly I confess that even after hard thinking the result is unsatisfactory. To improve typographically will be natural and commensurate with the march of progress in printing; improvement in caliber of writings will depend upon the work of the Club members and rests with them; perhaps an increase in the size of the journal can be looked for, but that is a financial matter that will call for a committee on finance. Of course we would like to see a CONDOR three times the size of the usual one; and a volume of 600 pages instead of 200 would be just three times as good; perhaps we will have it before the second decade is completed. But whatever form the improvements may take, let us not forget that it is up to each and every member of the Club to do his best to help out; if we all do that the future is assured.

And now, all thanks to those who have worked to bring us to this successful ending of our first ten years; we all know who you are, and we thank you; all thanks are due to the little workers as well as the big, and we only hope that you will work as hard in the future as in the past. If you need any encouragement, just read over your old files; remember the obstacles met and surmounted in the past; note the successive steps always up and on, in the improvement of the journal and the work of the Club, and then let's all pull together for an even better record in the next ten years.

Los Angeles, California.

## FROM BIG CREEK TO BIG BASIN

By MILTON S. RAY

WITH TWO PHOTOS BY OLUF J. HEINEMANN

IT was early in the afternoon of June 10, 1908, that Oluf J. Heinemann and the writer arrived at Swanton. We had journeyed from Capitola to Folger by rail, from which place a short walk brought us to Swanton, which lies on and near the mouth of Big Creek. It was here that our road branched off leading up the Big Creek Canyon and over the mountains to the Big Basin.

With packs on our backs, which, besides blankets, held provisions for one week, we tramped along the thickly foliaged road which winds along with the creek, stopping occasionally to pluck the wild blackberries which grew in such profusion. I do not know of a more picturesque gorge anywhere in Santa Cruz County than the Big Creek Canyon. The territory is wild, and with the exception of the power station at the foot of the grade and the lonely cabins at the dam on the summit, the whole region is peopled only by those furred and feathered dwellers who have held forth since primitive times.

After leaving the power station the road ascends abruptly, so steeply that it bars almost everyone except he be on horseback or afoot. It is the steepest road I have ever traveled, for not even those impromptu dairy roads leading to the summer pasture lands in the high Sierras can compare with it. Our pack weighed about forty pounds and the steepness of the road, and the heat of the day accentuated the weight. Thus we meandered rather leisurely and more so as we disliked to miss any of the entrancing views of this heavily wooded canyon, still in all its primeval beauty, but soon, it is said, to be stripped as many others in the country have to the last vestige.

It was almost six o'clock when we reached the group of cabins at the Boyea creek dam on the summit. Failing to find anyone about we proceeded to make ourselves comfortable in an empty bungalow, when Oscar Ewald, who has charge of the dam, made his appearance and with a hearty hospitality insisted on our sharing the best he had to offer.

Even at six o'clock, when we arrived, it was still quite a while before sunset and we sat before Ewald's cabin enjoying the rare view, for the lake, lofty trees and other surroundings strongly reminded one of those incomparable Sierran landscapes. Nearby, at a pretty little stream, Boyea Creek, which led from the dam, a Winter Wren (*Nannus hiemalis pacificus*) was pouring forth a crystal song, trilling in that silvery way, which altho it seems almost continually on a single key is extremely beautiful. A finished artist like the winter wren, it seems, does not need the range of notes that are given to a meadow lark or grosbeak. In the giant spruces and redwoods which towered above, dwarfing the cabins, Coast Jays (*Cyanocitta stelleri carbonacea*), the conspicuous bird of this section, limb by limb were ascending the great trees or anon would assemble in the rear of the cabin to dispute ownership with Ewald's cats over a dish of provender, while out among their nests in the dead trees standing in the clear waters of the lake Brewer Blackbirds (*Euphagus cyanocephalus*) discussed matters in their characteristic way.

Ewald was a man of wide experience: for many years he had been to sea, visiting all four corners of the earth, and around the evening fire many a tale he told of other lands, tho, too, much of hunting, fishing and trapping in these wilds; for here coons, foxes, deer, wild cats and even the lordly California lions still abound.

The following morning, our host insisting, we decided to remain another day. By opening the gates of the dam Eweld produced a waterfall a quarter of a mile below, which gladdened the heart of that camera fiend, Heinemann, who I think took it from six positions all looking very pleasant as it fell over the water-worn precipices among the moss and ferns. Ewald on joining us led the way along the flume which brings the water from the other dam at the head of Big Creek. Here, among those great trees, the redwood and spruce, is a region of wonderful beauty. Silent and still the great green forest walls the view in every direction, while half hidden by fallen logs, great boulders and the overhanging smaller trees and shrubs in all their bright greenery, run the ever singing brooks.

It was near the head of that pellucid stream, Big Creek, that I found a nest of considerable rarity. I noticed a Western Winter Wren disappear beneath a huge fallen redwood which lay across the stream and on examination found what was



CABINS AT BOVEA CREEK DAM, SANTA CRUZ MOUNTAINS

rather unusual, three nests! Two were of previous seasons, one holding an infertile egg. The third nest was but newly built. All were made of twigs, leaves and lined with moss and feathers, and placed among the bark-folds of the redwood which were particularly deep on this tree. If the nest was hard to find it was still more difficult to photograph, situated as it was, directly over and not far above the water. But Oluf's determined spirit rises when he finds a rebellious subject and after some considerable maneuvering the telling of which would reveal several state secrets, he snapped the bulb with the result shown herewith.

The trail, for this is almost a roadless country, took us away from the Big Creek Dam and up the steep mountain sides towards the coast. After reaching the top of the ridge we came to Gregory Heights where we found a large open clearing with grain fields and orchards and tenanted by many birds of the lower zones. For here, while the Black-headed Grosbeaks (*Zamelodia melanocephala capitalis*)

trilled among the orchard trees or House Finches (*Carpodacus mexicanus frontalis*) made merry along the ridge of the hotel roof, I could faintly hear songs from the realm of the Western Winter Wren and Monterey Hermit Thrush in the dark, wooded canyon below.

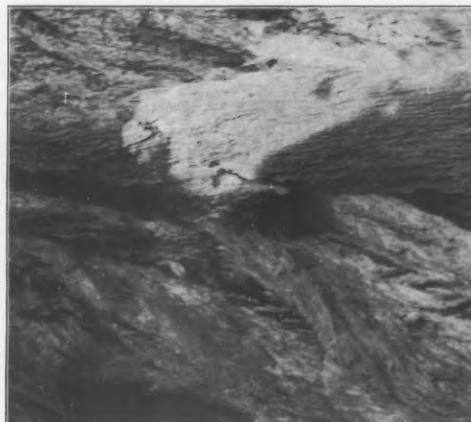
While returning Ewald rather surprised us by naming forty-five different trees and plants in the canyons and by the erudite way in which he discoursed on the properties of spigmint, yerba santos and other herbs.

At noon on June 12, after the meal prepared by Oscar which made up in quantity what it lacked in courses, he escorted us some distance up the road where he took leave after giving some farewell advice on roads and trails. A rocky ridge of shale, sparsely covered with brush, rises above the northern end of the dam. On these rocky ridges birdlife is almost nil and no bird songs are heard except the occasional twittering-cry of some lonely, forlorn Wren-tit. The road, dusty and dazzling white, reflected the light and heat of a torrid sun and caused us to gaze longingly to the north where the timber lands again appeared. After several miles we reached a range of mountains covered with oak and other timber but with no redwoods or spruce altho we were a thousand feet higher in elevation than the Big Creek Summit; but as Joseph Grinnell has already noted, this condition is not unusual along the coast, where the Upper Sonoran Zone is frequently found above the Transition. Orchards and many farms lie along the summit plateau of the Ben Lomond Mountains and at times the bird-life formed a rather curious combination of both zones. As a

further illustration compare typical species found here at an altitude ranging from 2000 to 2500 feet with those noted at Big Creek Summit among the redwoods, elevation 1000 to 1500 feet.

#### BIG CREEK BIRDS: HUMID TRANSITION ZONE

- Coast Jay (*Cyanocitta stelleri carbonacea*)
- Santa Cruz Chickadee (*Penthestes rufescens barlowi*)
- Golden Pileolated Warbler (*Wilsonia pusilla chryseola*)
- Western Winter Wren (*Nannus hiemalis pacificus*)
- Brewer Blackbird (*Euphagus cyanocephalus*)
- Red-shafted Flicker (*Colaptes cafer collaris*)
- Olive-sided Flycatcher (*Contopus borealis*)
- Western Wood Pewee (*Contopus richardsoni richardsoni*)
- Vaux Swift (*Chetura vauxi*)
- California Quail (*Lophortyx californicus californicus*)
- Point Pinos Junco (*Junco hyemalis pinosus*)
- Russet-backed Thrush (*Hylocichla ustulata ustulata*)
- Monterey Hermit Thrush (*Hylocichla guttata slevini*)



NESTING SITE OF WESTERN WINTER WREN IN REDWOOD LOG

## BIRDS ON THE PLATEAU, BEN LOMOND: UPPER SONORAN ZONE

California Thrasher (*Toxostoma redivivum redivivum*)  
San Francisco Towhee (*Pipilo maculatus falcifer*)  
Vaux Swift (*Chætura vauxi*)  
Tree Swallow (*Tachycineta bicolor*)  
Intermediate Wren-tit (*Chamaea fasciata intermedia*)  
California Purple Finch (*Carpodacus purpureus californicus*)  
Green-backed Goldfinch (*Astragalinus psaltria hesperophilus*)  
Bush-tit (*Psaltriparus minimus minimus*)  
California Jay (*Aphelocoma californica californica*)  
California Woodpecker (*Melanerpes formicivorus bairdi*)  
Willow Woodpecker (*Dryobates pubescens turatii*)

Perhaps nowhere in the county can a more magnificent view be had than from the heights west of Eagle Rock where looking over the precipitous mountain sides the whole eastern section of Santa Cruz County lies before one, stretching out canyon after canyon eastward to that giant peak, Loma Prieta, and with peaks and peaks still further east fading away into dim blues and grays. Scenery such as this always made me fear for our supply of film packs, for Heinemann, would give a subject like this a dozen exposures and simply wear a guilty smile when I remonstrated.

On the summit we could find no one who could speak English and the Italian farmers could only direct us on two roads. "This way, Santa Cruz; that way, Boulder Creek," was the limit of their road knowledge and almost of their vocabulary. At last wearying of trying to find the Big Basin Road we took the Jamison Creek Road, altho it took us at least fifteen miles out of our way, in the direction of Boulder Creek. This road meets the one from Boulder Creek about five miles from the latter town and it was at these cross roads, in a deserted cabin that we spent the night.

Resuming our tramp in the morning we repassed over the same ground we had before the previous year. The site of the water-ouzel's nest\* was visited, but no sign of it remained. We left the route of last year at the head of the grade, however, and took a short cut, which with devious windings went thru a stumpy country shorn of its timber, to Blume's Old Mill on the very edge of the Big Basin forest wall. Here we paused for lunch. Built under the eaves of one of the deserted buildings I noticed a nest of the Black Phoebe (*Sayornis nigricans nigricans*) with large young and on Blume's Creek close by, an arm's length in a sand bank, I pulled forth three young Belted Kingfishers (*Ceryle alcyon*) who posed for us on a log. The juveniles amused themselves in the interim by locking bills and paddling across the log in an awkward, flat-footed fashion, and I noticed it was always a backward movement. Might not this be a provision of nature to prevent young birds leaving the nest?

A short walk from here thru the thick woods brought us to the main road in the Basin and another along it equally short, to the Governor's Camp in the very heart of this, the great Santa Cruzan forest, where we had arranged to spend some time, and a paper treating of which, if the editor be in a lenient mood, may be laid before CONDOR readers at a future date.

San Francisco, California.

\*CONDOR IX, 1907, p. 175.

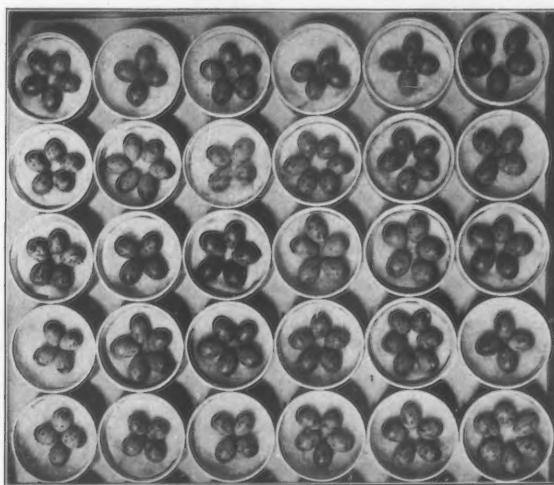
## ARRANGEMENT OF AN OOLOGICAL COLLECTION

BY HERBERT MASSEY, M. B. O. U.

WITH TWO PHOTOS BY THE AUTHOR

I HAVE read with interest "Some Hints on the Preparation of an Oological Collection," by Robert B. Rockwell in your issue of March-April, 1908, and think that a word or two as to how collections are arranged in this country may be of interest to your readers.

I am not going to enter into a controversy regarding the merits or demerits of "Egg Collecting," but I will say this (and it is a view that is so often overlooked), that the egg-collector does far less harm than the skin-collector: for if a first set is taken the birds will assuredly lay again, but if the birds are shot there is the end. A collector who has a long series of any particular species (and you must have very



SERIES OF EGGS OF THE TREE PIPIT (*ANTHUS ARBOREUS*),  
SHOWING ARRANGEMENT IN GLASS-TOPPED TRAYS

long series of many species), is classed as an egg-hog; but a collector who goes out and sends home some thousand skins to his museum is thought to be a very fine fellow indeed. A series or collection of eggs, well arranged and set out is much more a thing of beauty than a drawer full of rolled up skins; and a private collection or a museum should be pleasing to the eye as well as instructive, and give pleasure to the ordinary lover of nature, as well as to the student.

As regards the housing of a collection it is difficult to speak, as most people have different ideas of cabinets, size of drawers, etc., etc. My cabinets are made of oak, and the drawers of the very best white deal (for lightness), stained fronts, with runners of hard wood. The eggs are arranged systematically based on Howard Saunders' list, with a few exceptions; this way sometimes leads to loss of space where the eggs of birds in the same family vary greatly in size, but this is a small loss compared to the gain in having a systematic arrangement.

Where the eggs are singles as in the Guillemots, Puffins, Razorbills, etc., I have glass frames to the drawers, easily fitted and easily lifted; the eggs rest on sheets of cotton wool, in rows with thin divisions of wood separating the rows; in all the other cases each clutch is in a box to itself, glass topped and nearly air-tight, certainly dust proof; the drawers measure  $16\frac{1}{4}$  inches by  $16\frac{1}{4}$ , so that I can get in 6x6 boxes of  $2\frac{1}{8}$  inches, 5x5 boxes of  $3\frac{1}{8}$ -8 inches, 4x4 boxes of 4 inches, and 3x3 boxes of  $5\frac{1}{4}$  inches diameter. All the boxes in the same drawer are of the same depth and come almost flush with the top of the drawer, but where large and small eggs come in the same family a little maneuvering is necessary which in a large collection is simple.

I now come to the most important point of all, and that is the labeling; and it is here that I think Mr. Rockwell is at fault; in spite of what he says I feel sure that the triangular label must detract in some way from the appearance of the eggs.



NEST AND EGGS OF COMMON TEAL, LONG-TAILED DUCK,  
HARLEQUIN DUCK AND POCHARD, SHOWING  
METHOD OF LABELING

under a number, and each set having a different set mark. Thus my number for Golden Eagle is 18. The first set would be 18 (and if c-2 both eggs would bear the same mark), the next set would be 18A, 18B, 18C, etc., etc., so that in a collection no two sets would ever bear the same marks.

All details are entered in the egg-book and some are so lengthy that a card would be of no use, nor, for the matter of that, the bottom of the box either; every egg in my collection is numbered and that number appears on the bottom of the box with data as far as possible, and if any further particulars are wanted it is very easy to refer to the egg-book.

It may be argued that handling the boxes would be detrimental to the contents, but the cotton wool is so arranged that the pressure of the glass lid is sufficient to keep the eggs from moving and in fact the glass just touches the eggs; I have found this method very useful in sending eggs for exhibition for lectures, etc.

In the first place I always use round boxes, the name of the species pasted in the inside of the box, close up to the top edge and easily visible. Most of the data is written on the outside of the bottom of the box; for museums as well as private collections the average person does not want data, and anyone sufficiently interested will not mind the trouble of lifting the box (this you can easily do with the round box on account of the spaces between boxes, whereas in the square boxes fitting tightly in a drawer it is not so easy), and reading the particulars; these particulars if at all lengthy, could not possibly be written on the triangular label.

All my eggs are entered in my egg-book, each species

and each set having a different set mark.

as each egg has not to be separately packed. I have had eggs so arranged for over 30 years, and the cotton wool is as clean as when it was put in, showing that at any rate the boxes are dust-proof. We are fortunately not troubled with many insect pests, our great enemy being the damp, and this as a rule can be guarded against.

I enclose a few photographs showing the different sizes of the boxes. [Two of these photos are reproduced herewith.—Ed.]

*Burnage, England.*

#### A MONTH'S BIRD-COLLECTING IN VENEZUELA

By JOHN F. FERRY

AFTER a four days' sea journey from Panama, in a large English steamship, I arrived in La Guayra, Venezuela on April 21, 1908. An enormous mountain, La Sella, frowns down upon the little seaport huddling upon the narrow strip of shore at its base. The town is hot and unhealthy, and I was glad to spend but one night there and leave next morning for Caracas. The railroad journey thither is one of the most magnificent in the world. The steep ascent requires the track to wind in and out along the sides of deep canyons, and affords a view of the deep blue Caribbean sea and its palm-lined shore for great distances. The day after arriving in Caracas my bird-collecting, for the Field Museum of Natural History, began.

The valley in which Caracas lies is an extensive level plain surrounded by stately hills. To the north lies the great Sella mountain, which rises 9000 feet almost perpendicularly from the sea, one of the grandest spectacles in the world. Most of the mountains about Caracas are bare, the soil being red and sun-baked. Canyons are usually forested, as are also many of the mountain tops. The plain during the dry season is extremely arid and parched, but like our dry southwest the rainy season transforms such a waste into fields of waving grass and flowers. Irrigation is carried on extensively and fields of cane and other crops relieve the eye with their broad stretches of green. The little river Guaire flows thru the valley and most of its course is thru cultivated fields. Its banks are lined with dense brakes of cane. Coffee plantations are much in evidence. They are very attractive to the eye of the traveller. The coffee bushes resemble a miniature orchard, the trees being planted in rows and of a dark green color. The blossoms are beautiful and are very fragrant. But the most curious feature of the coffee plantation is the magnificent, tall shade trees whose branches interweave far overhead, and keep the hot tropical sun from the delicate coffee bushes. These plantations are usually favorite bird haunts; and particularly so in the Caracas Valley where there are practically no native forests. In these coffee plantations birds are found in surprising numbers, and here the collector strolls back and forth, often not knowing which one of several desired species to shoot, so great is the variety of birds there. One tall tree growing in the coffee plantations bears red, star-like blossoms which contain a small fruit. This tree is as popular with the birds as our choke-cherry tree at home, and often most of a morning's collecting was done beneath one tree. At one time I have seen several species of hummers, coerebas, euethias, yellow warblers, flycatchers, several species of tanagers, orioles, paroquets, robin-like thrushes, grosbeaks and woodpeckers. The only difficulty encountered was the great height

of the tree, the food supply being greatest there, and the birds consequently more abundant.

Some low spurs of the mountains project into the valley, and deep arroyos often cut its surface. Where fire and the machete have not reached, a dense, thorny chaparral, woven with strong string-like vines, still remains. It is a safe refuge for the birds, and birds shot in its midst are usually beyond recovery. Its edges however make an excellent collecting ground. Several birds not seen elsewhere occur here.

One is the Rose-breasted Thrush (*Rhodinicichla*). It is a bird of remarkable beauty, its throat and breast being a deep pink. But what makes the bird interesting to me are the circumstances relating to its capture. While softly walking by the edge of the thickets above described, a strange rustling was frequently heard in the dead leaves under the bushes. Steal up as quietly as I might I could never get a glimpse of what might be causing it. My first thought was a snake, then a mouse, and for a time I believed it might be a huge beetle whose laborious walking might have produced the faint rustling sound. Often the sound began but a few feet from me and apparently in a spot which I could see perfectly. The experience was becoming actually uncanny, when at last one of many patient vigils had its reward. The strange sound this time came from a comparatively open area, and by putting my eye near the ground, I could get an uninterrupted view for some distance into the brush. At last the sound and its mysterious cause were associated. For an instant I saw a dark bird about the size of a towhee bunting, and quickly fired. The slatey black plumage of the bird was all I saw as I painfully made my way thru the thorns and vines, but when I took the bird in my hand I saw the exquisite pink of the breast and throat. Later I discovered why the bird's actions in the brush were so mysterious. It has the scratching habit of the towhee, but frequently stops only long enough to scatter a few leaves, and then a few noiseless hops take the bird to a different quarter where the scratching may be heard again. Thus the bird dodges hither and thither within a small area and while its presence is constantly betrayed to the ear, the eye cannot penetrate the dense thicket and discover the bird. Several other thrush-like birds have this habit, and all told, I was put to much vexation and loss of time in getting a few of these tormenting creatures.

One day while walking among the forlorn, brushy hills I was surprised to flush a covey of quail (*Euptychortex*). As they darted away they looked much like our own Bobwhite. To my despair the flock sought safety in a patch of the densest shrubbery, and I had to give up the pursuit with keen regret, as these quail seemed strangely out of place, so like our own bird, and yet so far from home. Fortunately my curiosity was satisfied; for a few days later I again flushed a flock, and this time took my chance at a wing shot, in the endeavor to keep my quarry from gaining the thicket. My surprise and delight were equal to each other, when the bird I singled out fell to the ground. At the time the bird seemed strikingly suggestive of both the California Valley Quail and the Bobwhite. On its head is a long tuft of tawny feathers, and on its breast a patch of chestnut, while its general body markings are quite similar to those of the Bobwhite. All their habits that I observed were typically quail-like.

A very dainty, curious bird is the tiny green paroquet (*Psittacula* sp.). It flies about the cultivated fields and among low trees, uttering a high-pitched note which is the subdued screech of its larger relatives. It climbs nimbly up and down weed stalks while feeding upon their seeds. These birds are tenacious of life, like all parrots, and unless killed outright, they will wriggle in among the

grass and leaves where they fall, and being entirely green themselves, they are seldom found when thus concealed.

A very interesting bird met in the vicinity of Caracas was a tiny woodpecker, about the size of one's thumb. Its plumage is of an odd pepper-and-salt pattern, being an admixture of black and white. It clammers slowly about twigs something after the manner of a nuthatch. The exquisite sky-blue tanager (*Tanagra cana* subsp?) was very abundant here and also a jet black species relieved only by white spots on the shoulders (*Tachyphonus*).

The whirr of humming-birds' wings was almost constantly in one's ears. An odd species was tolerably common here, its long white tail feathers causing it to gyrate in a singular manner as it hovered about a flower. The small finch (*Euethia* sp?), the males mostly black, the females olive gray, were abundant here and occurred in flocks about the borders of cultivated fields. The red-start (*Setophaga ruticilla*), water-thrush (*Sciurus noveboracensis* subsp?), and lesser yellow-legs were the only North American migrants seen here. Swifts were common but their rapid flight baffled my attempts to secure one. There were several varieties. A common bird among the brushy hills was one of the Dendrocolaptidae (*Sittasomus* sp?). It has a note very like our song sparrow.

For two weeks I collected in the vicinity of Caracas, visiting two different localities, west of the city. A pleasant feature of my stay was several visits to the city itself. Travellers have written so much in regard to its present and historic interest, its beautiful buildings and its fascinating life that it is not necessary for me to speak of it here. I should like to add one word as to its climate. Its altitude is 4017 feet so that notwithstanding the fact that it is but ten degrees from the equator, it has a delightful climate, 65° to 70° the year around. The air has a soft, balmy quality which is not enervating.

In this respect Caracas is in marked contrast to La Guayra, its seaport, which lies over the range of mountains to the north. Tho only six miles in an air line from Caracas and 4000 feet below it, La Guayra is one of the hottest places in the world, having a temperature the year around of 100 degrees. It is a very unhealthy city, directly upon a low, flat coastal plane. While we were there the bubonic plague was raging, and we finally had to leave the country hurriedly by another port, because of the rigid quarantining of La Guayra, and the possibility of the same being done to other ports. How 900 bird-skins and two trunks full of personal property were held for months in La Guayra, and were actually reported as destroyed, but finally sent safely to this country, is a long story with an unexpectedly happy ending, but too long to relate here.

On April 6, 1908, Dr. Ned Dearborn of the Field Museum, arrived at La Guayra from Curacao, one of the Dutch West Indies, where he had been recently collecting, and we worked together for two weeks in Venezuela, when the aforesaid plague broke out, and we hurried out of the country. The following day, April 7, we left Caracas by train for the famous Valencia plains, where we made our headquarters in the thriving and attractive town of Maracay. Here we had most excellent collecting. The country was perfectly flat, being once the bed of the now comparatively small Lake Valencia. Occasionally low ridges or spurs of hills from the surrounding mountains project into this plain. Some of the land is marshy, and a small brook was utilized for irrigating a few adjacent plantations. Most of the country, however, was very dry, and thorny, almost leafless bushes covered most of landscape. The fringes of forest severely parched by the drought, harbored a great variety of bird-life, and the thirty or forty birds which the collector would find in his basket after about three hours' collecting is surprising to one

used to conditions in northern climes. This locality was remarkable for its number of large and handsome hawks. The Audubon Caracara and the Wood Ibis were welcome representatives of our own bird-life.

At Maracay we were objects of great interest to the inhabitants. A small army of boys and youths followed us into the fields each morning. They made successful collecting quite impossible, and how to get rid of them was a great problem. Simple forbearance was the main key to this problem's solution. By keeping up a brisk pace and purposely selecting cactus-grown and thorny spots—very trying to bare feet—we found the number constantly diminishing until but two or three hardy spirits still remained. These about balanced the account by retrieving birds shot, or pointing out others in the trees. These native lads showed a wholesome fear of our guns, and when we affected indifference as to their whereabouts, when we took aim, the timid ones gradually gave up the chase. While at work in a stone-walled room, with its iron-barred windows opening on the street, a crowd of curious faces always looked in on us, often hanging to the bars to get a better view, and in consequence shutting out much-needed light. Sometimes the room was almost filled with idle onlookers, but this proved not to be an unmixed evil; for several of our visitors were ones who proved of the greatest help to us. The most distinguished of these visitors was no less a personage than Señor Andrade, Castro's predecessor as president of Venezuela. He was a charming man—a perfect Castilian in manners and dignity. He readily offered to grasp our bloody hands as we rose from our taxidermy work to greet him. He showed a great interest in our work and cordially asked us to call upon him in his home at Caracas.

A very interesting character and one who later greatly aided us in our work, was a man from Texas, whose many years in Venezuela had been full of adventure. Being a mechanic by trade, he had designed a steel steamboat, suitable for the shallow waters of Lake Valencia. This boat had been constructed in Germany, shipped in parts to Venezuela and erected upon the lake by this ingenious and indomitable Yankee. He was known variously as "Captain" or "King of the Lake"; and his dominion was one of fact, for the poverty-stricken natives about the shores had no other practicable means of getting their scanty crops of coffee and bananas to the railroad. Different from what one might expect, this man was in no sense a tyrant, but was held in great esteem by the natives. Our common nationality made us friends with this man at once, and we gladly accepted his invitation to accompany him on his boat. A few days later I moved to Cabrera, a railroad station on the shore of the lake, where the Captain's steamer had its dock.

Dr. Dearborn in the meantime accepted the invitation of another of our visitors—an extremely pleasant gentleman—and in his company made a journey to this gentleman's estate high up in the mountains. Here were found a trogon and other birds not met at the altitude of the Valencia plains. Later Dr. Dearborn came to Lake Valencia. This lake is one of the scenic spots of Venezuela. Humboldt on his famous South American travels visited it, and his accounts fire one's imagination even now. Its placid, clear waters are surrounded by towering volcanic peaks, whose rugged, dark red slopes pitch directly into the lake. The shores are lined with rushes and occasional open forests of mimosa-like trees. Twenty-two hilly islands dot the lake's surface; twenty-two streams flow into it (tho not one flows out of it) and twenty-two kilometers is the length of the lake. Its area is sixty-six square miles and its altitude is 1200 feet. The lake abounds in mud flats and upon them and in the shallow water stand countless numbers of several varieties of herons, black-necked stilts and other waders; coots, ducks and grebes dot its surface. Among the rushes are seen tiny rails as well as larger ones. Immense flocks

of tree ducks circle over the lake uttering their shrill call "chiriri", from which the bird gets its native name. The wooded shores of the lake teem with land-birds and altogether this locality is an ornithologist's paradise.

Our first visit to the lake was marked by a cruise in the Captain's boat, and the day spent on the lake was one of incessant interest. Birds of many kinds were passing within gun shot of the boat almost continually, and occasionally we brought one down, but the Captain's kindness led us to use great restraint, for no sooner did a bird strike the water than he stopped the engine and had a boat lowered to retrieve the bird. The Everglade Kite, another friend from home, was common here, and the Snowy Heron (*Egretta candidissima*) and a large heron—at a distance an exact counterpart of our *Ardea herodias*—lent a familiar aspect where nearly all was strange and new. Graceful terns, pearl gray with black-tipped wings, were in sight most of the time. Occasionally a handsome large king-fisher (*Ceryle torquatus*) skimmed close to the water's edge while flying from one perch to another, and dainty little black flycatchers with white heads, occurred in abundance among the reeds at the water's edge. Crocodiles were everywhere, and one Dr. Dearborn secured with a well-aimed bullet from his three-barrelled gun.

Our most notable experience on Lake Valencia was our water-hog, capybara or "chiguiri" hunt. The latter term is the one used by the natives to designate this huge rodent. This animal might be called an immense musk-rat the size of a sheep. Its terribly long incisors are one of its most striking characters. They are as long as one's fingers, sharp as chisels, and their fearful work was seen in the way they lacerated the dogs used in hunting them. The breast of one dog and the head of another were laid open in a most shocking manner by capybaras which were brought to bay by their pursuers. The animals have wide palmate feet and toes which serve them as well in swimming as in walking on land. For the native's zeal in joining our hunt we had a local custom to thank. The padres allow the flesh of these animals to be eaten during Holy week—the time we were there—because these quadrupeds spend much of their time in the water, and thus partly partake of the nature of fishes. A party of five excellent gentlemen from Caracas, Englishmen and Americans, were here for a hunting trip and they kindly included us in the water-hog hunt which was carried on as follows:

The party, increased to twenty or twenty-five by the addition of native hunters, divided into two parts, one taking the boats and keeping close to the outer edge of the rushes, the other going afoot on land. Four natives, stripped and carrying their long, sharp knives or machetes, entered the rushes with a troop of hound-like dogs. After a seemingly long wait, there was suddenly a furious yelling of men and barking of dogs. A violent swaying of the rushes showed the quarry was making for the lake, and in an instant more a huge tawny animal made a tremendous spring, clearing the rushes and striking the water with a great splash. With head just out of water it began a rapid swimming toward the open water. Every boat gave chase, and excitement became intense. With apparently little effect upon the animal, shot after shot was fired at its gliding form, from old muzzle-loader, modern shot-gun, rifle and revolver. After each fusillade the hard-pressed beast would dive, appearing often a long distance away. Again the boats would draw near and another volley would be fired. At last weakened by its need of air, and by many wounds, the luckless water-hog was nearly helpless and from a boat at its very side, a well-placed shot would finally end its gallant fight for life. Some eight or nine specimens were secured during the morning by the party in boats. The land party did not get a shot at a single animal. One of the best specimens

Dr. Dearborn and I carefully skinned, but the skin spoiled owing to our labors at Lake Valencia being ended by an unexpected event.

When we reached land after the hunt was over, we learned that La Guayra had been rigidly quarantined because of the appearance of bubonic plague in that port. The closing of Puerto Cabello, our only other means of egress from Venezuela, might follow at any moment, and we were advised to leave the country while we still had a chance. Accordingly we left by the first train the next day and were in Puerto Cabello that night. The journey was thru picturesquely mountainous country, much of it being barren and sun-baked. The next day, by the rarest chance, I got an excursion boat sailing to Curacao, an island of the Dutch West Indies, while Dr. Dearborn pursued his labors a short time longer in Venezuela and took the first available steamer to New York.

Field Museum of Natural History, Chicago, Illinois.

### THREE VIREOS: NESTING NOTES FROM THE HUACHUCA MOUNTAINS

By F. C. WILLARD

WITH THREE PHOTOS BY THE AUTHOR

ONE of the most interesting families of birds as home builders is that of the Vireos. Three representatives of this family nest in the Huachuca Mountains, the Plumbeous (*Lanivireo s. plumbeus*), Stephens (*Vireo h. stephensi*), and Western Warbling (*Vireosylva g. swainsoni*), named in the order of their abundance. It was my good fortune to make a rather intimate acquaintance with all three of these species during the season of 1908.

The Plumbeous largely outnumbers the other two. It is rarely found below an altitude of 6000 feet on the east slope and 4000 feet on the west, nesting from its lowest range to the summit where I have found nests at an altitude of over 9000 feet. Every canyon has a numerous line of the Plumbeous Vireo along its bottom with scattering pairs in all the small side canyons and on the ridges. The nests are usually close to the ground, frequently within reaching distance. Oaks, ash, maples and sycamores are selected as nesting sites. Each pair has its claim staked out and ejects all intruders of the same species, altho the other two species are unmolested by Plumbeus even when nesting in close proximity.

In nest building they go as far as a quarter of a mile for material. They feed closer to the nest, however, probably at not over half this distance. The female does all the nest-building but is assisted somewhat by the male in the duties of incubation. He also feeds his mate on the nest, but this is done rather infrequently. My present observations give the time at intervals of from twenty minutes to half an hour. When doing so he sings close by the nest after feeding her and this has helped me locate several. The male also sings when the nest is approached, and once this year I saw one sitting on the nest and singing. Toward evening the male frequently flies down close to the nest and sits within a few inches of it for long periods, being perfectly quiet and motionless all the time.

The nest is a very pretty cup-shaped affair as is usual with this family. It is composed of grass-tops woven into a frame work and filled in with oak down and greenish colored oak blossoms and bits of spiders web. The lining is of fine grass tops from which all the seeds have been removed. The general appearance of a

normal nest is greenish in color. One nest built in a sycamore was made entirely of white goat hair and fine grass. The hair hung down some inches in a fringe all over and made a handsome ornament. Being compelled to leave before the eggs were laid, I did not collect it.

Both parents are very brave when on the nest, the male more so than the female. A nest was found May 31, 1907. It was forty feet up in a maple, one of the few instances where the nest was placed well up from the ground. The female sat close as I worked with my rope trying to get within reach. Just as I was about to reach the nest the male flew down and the female relinquished her guard to him. He pecked my finger as I reached out, and settled down close into the nest. I poked him but he refused to leave and sat with mouth wide open ready to repel the invader. I tried slipping my finger under him but he did not budge. Then I took him by both sides of his open beak and lifted but he hung onto the bottom of



NEST OF THE PLUMBEOUS VIREO

the nest with his feet. Nonplussed, I desisted for a few moments, debating how to get a view of the contents of the nest. While doing this he decided that he had done enough, hopped off, and flew into a neighboring tree. He deserved his treasures, so after one peep at the three eggs, I untied my ropes and descended.

On May 23, 1907, while ascending Ramsay Canyon in company with Mr. W. A. Johnson I stopped at a place where a Plumbeous was nearly always heard, but all was silent. I was about to move on when a couple of Long-crested Jays flew by into a clump of maples. Almost instantly the war-cry of the Vireos arose and, on hurrying to the spot, both birds were found fighting the Jays which soon took refuge in flight. A minute later, the female flew down into a small oak and hopped onto her nest which hung in plain sight some twelve feet from the ground and close to the trail. I was up that tree in a hurry and reached toward the nest, which she left at once. I could feel a nest full of eggs so began transferring them to my

mouth. There were still two eggs in the nest when I reached for the fourth. After placing it with its three counterparts I reached for the fifth supposing it would be a cowbird's. What a surprise and delight it was to bring forth another Vireo's egg. Five fresh eggs and such beauties. This was my first set of Plumbeous and the only one of five I have seen. Four is the usual number tho three eggs are not unusual. The proportion varies with the different years. I have not been in the field late enough to make any observations in connection with the young.

With the Stephens Vireo it is different as my observations always began with families of fullfledged young, and until this season, ended there, too. In speaking of Stephens Vireo the first thought is always of their song, if it can be dignified by such a name. It is like the mewing of a very small and lonely kitten repeated with even more energy, frequency and persistence. At times the "me-ow" is made more heart-rending, like a kitten in distress, the interval being slightly longer but the "me-ow" more drawn out and fuller in volume. The male will keep this up for minutes at a time, never pausing for breath. One was so persistent I timed him.



NEST OF THE STEPHENS VIREO

This series lasted thirteen and one-half minutes at the rate of one every second. This seems incredible but was actually timed by a watch. He sat still on the top of a madrone tree most of the time. The cadence scarcely varied at all. Twice he hopped to another perch but did not let the movement interrupt his song. The female does not have the same note but is restricted to the usual scolding note of the Vireos and a peculiar chirp which I am unable to describe and which she shares in common with the male. This last note was heard only around the nest or when feeding the young. The first brood of young is frequently flying by the 10th of May and they are fed by the parents until so well grown that it is impossible to tell them apart. The usual number of young seen at this time is three, tho once or twice I have counted four juveniles in one group.

On May 21, 1908, I was seated on a steep mountain side watching a Grace Warbler. There were a few large pine trees, some red oaks, and a scattering growth of oak brush, one clump of this being about thirty feet below me. A pair of Stephens Vireos flew into this and the female began arranging some nesting

material. Not enough had yet been placed to show up. The Grace Warbler was immediately forgotten in view of the more engaging prospects. The female was evidently using some cobweb. After it was placed to her satisfaction the male took a turn at re-arranging it. During all the time I watched him he did this and several times he brought material which he invariably dropped, none of it ever finding its way into the nest. On June 5 the female was sitting. She did not leave the nest until touched. The four eggs were slightly incubated. In size they compare very closely with the Western Warbling Vireo. They are considerably smaller than those of the Plumbeous. The spots are rather large, some larger than a pin head. They are not as black as the spots on either Western Warbling or Plumbeous, rather, a sienna brown.

The nest is a wonderful piece of bird architecture. It is composed of a frame work of fine grass holding together a thick mat of oak down almost as compact as



NEST OF THE WESTERN WARBLING VIREO

felt. The prongs of the fork are entirely covered with the down held on by cobwebs. There is a scanty lining of fine grass tops. As is the case with the Plumbeous, the seeds are all removed from the grass tops used in the lining. The nest has a yellowish appearance.

On May 22 another bird was seen building, the nest being almost completed, apparently. June 3rd no bird was around and June 12th, when I again visited it, the nest had entirely disappeared. Not a vestige was left. I climbed up to examine the fork where it had been and it was cleaned off completely. I feel sure they had moved the nest to some oak bush near by, but I could not locate it. Both these nests were about twelve feet from the ground, near the top of the same kind of oak brush.

On June 10th an intruding Jay helped me locate a nest with three well-feath-

ered young. This nest was in Carr Canyon and was placed at the top of a black oak sapling growing out of the side of the canyon. The nest was fifteen feet from the ground and seventy-five from the bed of the canyon which is very deep with precipitous walls. The male came with a caterpillar but seeing me would not go to the nest. The female, however, fed the young and brooded them without paying much attention to me.

The least common of the three Vireos breeding in the Huachuca Mountains is the Western Warbling Vireo. I have located but four pairs after visiting all the principal canyons, but there may be others in some of the smaller canyons. One pair is near the reservoir in Miller Canyon. I spent two hours on June 4, 1907, looking for their nest, climbing all the likely looking trees. The male got very uneasy at my continued presence and finally called his mate off the nest. She began calling with the usual Vireo alarm note and after locating her I watched very carefully for about ten minutes till she flew onto the nest, thirty feet up in a sycamore standing nearby on the edge of the creek. The nest was invisible from the ground and was well sheltered with leaves above. The female left the nest as I climbed up. There were four eggs with incubation begun. I secured good photographs of this nest and eggs.

On May 21, 1908, I was fortunate enough to locate a nest just begun. The two birds were together in the tree tops nearby all the time. The male was singing most of the time, the female responding from time to time with low notes which I cannot find syllables to describe. They were difficult to follow from tree to tree and it was sometime before I could tell where they were building. On June 1st the nest contained two eggs and June 4 I collected the nest and four eggs, taking photographs of them. The nest was placed in a fork near the top of a small ash growing well up from the bed of the canyon. The nest has the framework of grass tops like the two preceding species but the interwoven material is mostly a white parchment-like substance from the seed pods of the mescal. Bits of cobwebs complete the outside which is rather ragged in appearance and of a grayish white color. The lining is fine grass tops with the seeds removed as is the case with the other two.

The average measurements of the nests of the three species as shown by specimens in my possession are as follows:

Plumbeous Vireo: diameter, outside  $3\frac{3}{4}$  inches; inside  $2\frac{1}{4}$  inches.

Stephens Vireo: diameter, outside,  $2\frac{3}{4}$  inches; inside  $1\frac{1}{2}$  inches.

Western Warbling Vireo: diameter, outside  $3\frac{1}{4}$  inches; inside 2 inches.

Plumbeous Vireo: depth, outside  $2\frac{1}{2}$  inches; inside  $1\frac{3}{4}$  inches.

Stephens Vireo: depth, outside  $2\frac{1}{2}$  inches; inside  $1\frac{3}{4}$  inches.

Western Warbling Vireo: depth, outside 2 inches; inside  $1\frac{1}{2}$  inches.

*Tombstone, Arizona.*

#### NESTING OF THE PINE SISKIN AT GREAT SLAVE LAKE

By RUDOPH M. ANDERSON

THE Pine Siskin (*Spinus pinus*) appears to be a rather rare bird in the territory along the Athabasca, Slave and Mackenzie rivers. At least the writer met with the species on only one occasion during the season of 1908. On the morning of June 24, our party, on one of six scows and a York-boat, towed by the little steaming "Eva," pulled out of the delta of the Slave River, intending to cross the end of the lake to Hay River. A fairly strong wind was blowing from across the lake, causing heavy waves over the mud flats outside the mouth of the river,

and we were compelled to run on the lee side of Moose Island, and wait for the wind to subside. Moose Island is a high, rocky, stony island, about one and one-half miles long and three-fourths of a mile wide, a few miles from Fort Resolution, at the south-west corner of Great Slave Lake. The island is fringed with white spruce of good size; but the interior is high and rocky, covered with a tangle of burned and fallen spruce timber and sprinkled over with a sparse growth of young poplars.

A few Pine Siskins were seen in the spruce trees as we landed, and a few Chipping Sparrows (*Spizella passerina*) along the shores. The interior of the island revealed many Slate-colored Juncos (*Junco hyemalis*) and Intermediate Sparrows (*Zonotrichia l. gambeli*), one Black-poll Warbler's (*Dendroica striata*) nest with four eggs, one Sparrow Hawk, one Canada Jay (*Perisoreus canadensis*), and a small Flycatcher (*Empidonax*). White-throated Sparrows were fairly common, and a Spotted Sandpiper's (*Actitis macularia*) nest with four eggs was observed on the north shore of the island. Half a dozen Pine Siskins were observed at one time in the tops of spruce along the south shore.

After lunch I was resting under a white spruce, about one foot in diameter, near our campfire on the lake shore, when I saw a Pine Siskin fly into the tree directly above my head. Examining the tree carefully I soon saw the nest among the lower limbs of the tree, about fifteen feet from the ground, near the end of a small horizontal branch about two feet from the trunk of the tree. Both parent birds were about, and I shot the nearest, which proved to be the male. The other bird was unfortunately lost in the brush.

The nest contained three eggs, advanced in incubation; very pale blue in color, sparsely spotted at the larger end with light reddish brown. One of the eggs had on one side, near the smaller end a heavy comma-shaped streak about one-fourth of an inch long, and one other egg had a heavy, irregular line about the same size in a similar position; these streaks were deep umber-colored. The other egg had no large marks. The eggs also showed a very few minute black pin point marks at their larger ends.

The nest was very neatly built, well-cupped and well-concealed by the very thick terminal twigs of the white spruce branch. Depth (outside), two and one-half inches; (inside) one and one-half inches. Diameter (external) two and one-half inches; (internal) one and one-half inches; composed of small dead spruce twigs, a few grasses, fibrous bark shreds, and a few shreds of cottony substance; lined with fine grass fibers and hair, mixed with a few bunches of moss fibers.

*Herschel Island, N. W. T.*

#### MR. ROCKWELL'S SUGGESTION OF COOPERATION IN ORNITHOLOGICAL STUDIES

By WILLIAM E. RITTER

I WAS interested in Mr. Rockwell's "Plan for Cooperative Ornithology" printed in the September *CONDOR*. A word should be spoken on this subject from the standpoint of general biology as well as from that of ornithology.

That there are more observers of the natural habits of birds than of any other group of animals is, I suppose, beyond question. As a result there is more accur-

ate knowledge pertaining to this aspect of these than of any other animals. A large portion of that knowledge is unpublished and hence available only for the observers themselves and their few personal acquaintances.

I wish to point out that this kind of knowledge is the very essence of analytical biology. True analysis in science begins with what is "given"—with the original data. Now the data of biology are the organisms, *the plants and the animals as they occur in nature*. We can learn much, very much, about animals by killing them and taking them to pieces to study their bodily parts; but nature does not give us dead animals to start with. They have to be living before they can be dead.

So, too, we can learn much about the ways of animals by studying confined—"tamed"—ones; but these again are not what nature furnishes in the first instance. The study of zoology must per force begin with the animals of the forests, the mountains, the plains, and the waters.

To leave generalities and come to practical matters, my main points are: (1) that steps ought to be taken to correlate the efforts of ornithologists and to put their results into more permanent and available form; and (2) that these steps should be taken from the standpoint and needs of general biology as well as of ornithology.

The carrying out of such a project would require much time, thought, labor and money; but the general lines on which it ought to run would seem tolerably obvious. A central board or bureau, not too large, but still thoroly representative, would be needed as the medium for general direction and final finishing-off of the real work, viz, that done in the field by the numerous individual observers.

This "thoroly representative" board would need to be made up somewhat as follows: Of one or more persons whose interests are birds first and foremost; of someone who has made animal psychology and behaviour generally, his main object of study; and of some one of the broadest possible biological horizon.

Besides these elements in the make-up of the board (which might be designated as professional), managerial, editorial and financiering skill would have to be secured in some way; that is, either as combined with the professional elements, or as independent elements.

I believe there are great possibilities in some such scheme, vague and cumbersome as it may look at first sight.

It is, however, not worth while to enter upon detailed discussions until there is evidence that it would appeal widely and easily to students of animate nature. It is too protean an idea to be realized thru the enthusiasm and push of one or a few persons, unless indeed unlimited time and perseverance were among the endowments of such persons.

*University of California, Berkeley.*

## FROM FIELD AND STUDY

**Louisiana Water-Thrush in California.**—On August 17, 1908, while passing the time between trains at the station of Mecca, Riverside County, in search of the English Sparrow to determine its western progress along the Southern Pacific Route, I took an adult male of the Louisiana Water-Thrush (*Seiurus motacilla*) on the station ground among the water tank cars. Am I right in considering this a record case for the locality if not for the State?

Mecca is situated in the Salton sink at an elevation (?) of two hundred feet below the sea and within one and one-half miles of the present Salton Sea. The shores of Salton Sea are very bar-

ren at this point. The vegetation of the desert, saltbush (*Atriplex*) and mesquite (*Prosopis*) in scrubby form being the only vegetation noticeable except where the pumping plant of some rancher has made an oasis. At the station yard, however, a four inch well pipe has been sunk to a depth of eleven hundred and fifty feet where an artesian stratum was tapped which forces a gentle flow from the top of the pipe which overhangs the tank car siding. This small but constant leakage has nurtured a small grove of cottonwoods and a very limited tule patch.

The bird was first noted hopping about the trucks and platforms of the tank cars and was finally taken from the timbers of the tank support. The bird gave only its call note but this was heard repeatedly. The actions were those described by Chapman and others as being so characteristic. The teetering action and stout shanks remind one forcibly of the Dippers.

The bird flushed several times and seemed not at all shy tho restless as is its habit. Whether or not the same bird was seen each time is impossible to tell. Time did not permit very extensive or prolonged search after the one specimen was taken. Plumage was complete and testes inactive. The identification I feel to be unquestionable as the bird fits perfectly the careful description and measurements of Chapman in his "Warblers of North America."

It seems quite unusual to find this bird of the southeastern swamp and thicket so out of his sphere as to associate intimately with the Abert Towhee and Leconte Thrasher in the midst of a great south-western desert.

If our esteemed editor can assure me of this being a state record I shall be glad to deposit the specimen with the University Museum of Vertebrate Zoology where I consider such record specimens should be preserved.—LOVE HOLMES MILLER, State Normal School, Los Angeles, Cal.

[Yes; the specimen is unequivocally *Sciurus motacilla*, and establishes the first record for the species not only for California, but also as far as I know for the whole of the United States west of the Mississippi Valley. In accordance with Mr. Miller's generous offer, the skin has been added to the ornithological collection of the University of California Museum of Vertebrate Zoology, and is number 1105.—J. G.]

**Late Nesting of the Green-backed Goldfinch.**—On September 24, 1908, I took a set of four fresh eggs of the Green-backed Goldfinch from a cypress tree on one of our city streets, disturbing the parent bird from the nest. This seems to me a remarkable occurrence, as my latest previous date for nesting of the species was July 21.—C. S. SHARP, Escondido, California.

**The Present Status of the Least Tern in Southern California.**—I have noticed this season that the Least Tern (*Sterna antillarum*) seems to be on the increase at nearly all of the breeding grounds in Southern California.

The colony at Ballona Beach (this is the narrow strip of sand between Del Rey and Ocean Park) is nearly double what it was last year. As nearly as I could count, I should say that there were about 125 pairs of nesting birds. I watched this pretty closely, and do not think that more than ten per cent hatched because of the depredations of dogs mostly, and of small boys. This colony will surely disappear, and why the birds keep coming back I cannot see, as the whole thing (both island and mainland being cut up into building lots) is rapidly being built up with summer cottages. Some of the nests were not more than a hundred yards from the houses.

The Redondo Beach colony seems this year to be deserted. I noticed a few birds flying around, but no nests. This used to be a big colony, but the building of so many houses has driven the birds away.

The colonies at Bolsa Beach and Newport Beach were very thickly inhabited. The birds were there by the thousands, and I found it impossible to count them. The colony at Bolsa Beach is mostly within the grounds of the Bolsa Chica Gun Club and ought to increase every year, as the gun club people allow no one on the grounds. I should say that fully seventy-five per cent of the birds in this colony raised two or three broods.

The Newport Beach colony is split up into two or three main colonies, and this year a new one was started on a lot of reclaimed land. The land company had dredged the channels and filled a salt marsh up with the sand taken out where the channels were cut. This formed a nice white patch of sand and shells where the Terns made themselves perfectly at home. This colony probably succeeded in hatching sixty per cent of its eggs.

Both the Bolsa Beach and the Newport Beach colonies have increased about fifty percent over last year. The electric cars run directly thru the Bolsa Beach colony and the terns get so used to them that they very seldom leave their nests when a car passes.—W. LEE CHAMBERS, Santa Monica, California

**Subspecific Names in the Genus Passerella.**—According to the decision of the A. O. U. Committee, as stated in the Fourteenth Supplement (*Auk* XXV, July 1908, p. 395), the Fox Sparrow from Yakutat Bay should not be recognized in nomenclature as different from the Fox

Sparrow of Kadiak Island. In other words, *Passerella iliaca meruloides* (Vigors) [= *P. i. annectens* RIDGWAY] and *P. i. insularis* RIDGWAY are lumped together. To quote: "Both *annectens* and *meruloides* are believed to represent one form, which is inseparable from *P. i. insularis*". However that may be, it is certainly a mistake to discard the name *meruloides*, which has some sixty years priority over either of the other names and is without a shadow of a doubt applicable to the Yakutat form. (See CONDOR IV, March 1902, p. 45.)—J. GRINNELL, Berkeley, California.

**Northern Range of the Phainopepla.**—*Phainopepla nitens* has been recorded along the foothills of the Sierras at various places north as far as Marysville, but previous to my observations the northern limit in the Coast Range was Mt. Hamilton where R. H. Beck noted one bird in November, 1899, and Ernest Adams also recorded a bird from near the same place on October 28, 1898. Joseph Mailliard reports having heard their note in Marin County, but has never seen a bird.

On June 23, 1907, while in the Arroyo Mocho in southern Alameda County, I saw six of these birds which I took to be a family of four young and their parents. On April 1, 1908, near the same place I again saw a pair of Phainopeplas, but failed to secure either bird. Later in the year, however, while doing extended geological work in the Arroyo Mocho I again met with the birds several times, and I believed several pairs to have raised broods this last summer.

A number of birds were seen at dusk on July 21, 1908, and one young male of the year was taken, thus proving the birds to be breeding in Alameda County which probably marks their most northerly limit.—J. R. PEMBERTON, Stanford University, California.

**Pacific Fulmars and Pacific Kittiwakes at Long Beach.**—During February, 1908, I observed several Pacific Fulmars (*Fulmarus glacialis glupischa*), both light and dark phases, about the pleasure wharf at Long Beach, California. These birds were exceedingly tame, swimming about within a few inches of the numerous fish-lines and often making a dash for the baited hooks as the fishermen cast them. Upon tossing a handful of fish scraps overboard I was surprised to see the fulmars dive for the sinking pieces, sometimes going two or three feet under water and bouncing almost clear of the surface upon returning. They were also somewhat quarrelsome, fighting fiercely over a fish, uttering a harsh, rasping note the while. Several Pacific Kittiwakes (*Rissa t. pollicaris*) were also observed here.—C. B. LINTON, Long Beach, Cal.

**The European Chaffinch at Berkeley, California.**—On May 14, 1908, while passing a garden in Berkeley, near the corner of Prospect Street and Channing Way, my attention was attracted by an unfamiliar song, and on stopping to ascertain the source, I was surprised to see a European Chaffinch (*Fringilla calebs*), in full plumage, singing cheerily in the lower branches of an acacia tree. The bird was not more than ten feet distant and repeated his song three times in full view, so that there was no mistake in identification. He had probably escaped from an aviary in the neighborhood but seemed to be as much at home as any of the native birds and, despite the raw, drizzling weather, was singing as merrily as a house finch. Notes of this kind are perhaps worth recording as they may be useful in future in tracing the introduction of foreign birds which may become acclimated in certain localities.—T. S. PALMER, Washington, D. C.

**The California Record of the Cape Robin Open to Question.**—I recently visited the home of Mr. W. Otto Emerson, at Haywards, California, and was accorded the privilege of closely examining several of the record specimens in his extensive private collection. I was particularly interested in scrutinizing the skin of "*Merula confinis*", upon which (and it alone) rests the inclusion of the Cape Robin as a bird of California. This bird is a female, No. 159 (Coll. W. O. E.), and was secured by Mr. Emerson himself at Haywards, January 7, 1882. It was first recorded in Zoe, Vol. I, April 1890, p. 46.

I was at once impressed with the similarity between it and certain pale female examples of the Western Robin. Mr. Emerson and I proceeded to analyze its characters. A male of true *confinis*, from Sierra de Laguna, lower California, was at hand for comparison. It was found that the Haywards bird, altho a female, was not so pale as the Lower California bird. The breast of the former showed a decided reddish cast, of the same quality as in females of ordinary *propinqua* tho not so deep. The head of the Haywards "*confinis*" was colored exactly as in female specimens of *propinqua*, the superciliary stripe being not continuous but broken as in the latter, and the feathers on the top of the head being decidedly black-centered, also as in the latter. The white area on the belly of the Haywards bird was found to be no more extensive than in female examples of *propinqua*, and the bills were identical in size, outline and color. The only character left, then, by which to identify the Haywards bird with true *confinis* was the decidedly ashy dorsal surface. But this, in absence of the other characteristics, Mr. Emerson and I agreed to be

insufficient in itself to warrant calling the bird *Merula confinis*. In other words, the Haywards "Cape Robin", is a pale individual extreme of the Western Robin (*Merula migratoria propinqua*).—J. GRINNELL, Berkeley, California.

**Early Record for *Passerculus rostratus* in Los Angeles County.**—On August 18, 1908, I secured a female *P. rostratus* in the marsh at Alamitos Bay, Los Angeles County, California. I observed two or three others on this date and by September 1 they were quite common.—C. B. LINTON, Long Beach, California.

**Notes on the Western Gnatcatcher.**—The Western Gnatcatcher (*Polioptila caerulea obscura*) has appeared this summer over its breeding range in Central California in larger numbers than ever before, and has visited localities where previously unknown.

At Fyffe, El Dorado County, it had been noted by Barlow in June, but in no numbers. This year, however, it was a very common bird and no less than eight pairs of birds were observed nesting at Fyffe, and three sets of eggs were taken by H. W. Carriger and myself. Mr. Carriger in his three previous trips from Placerville to Fyffe had never seen a bird along the stage road, yet this year its note could be heard nearly everywhere, and seven specimens were taken over a range of twelve miles.

On March 22, 1908, near Point San Pedro, San Mateo County, I took a male gnatcatcher, thus making a record for this county.

In Alameda County, where observations were made over March, April, July and August, these birds were abundant nearly everywhere in the bushy regions and specimens of all ages were taken. Mr. W. Otto Emerson, probably the best posted man on Alameda County ornithology, can only report two instances of this bird having occurred in the county over a long period of years.

From the data thus taken from the widely separated localities mentioned, it would appear that the species has made a very large migration northward this last summer and I should like to hear of its occurrence in other localities this year.—J. R. PEMBERTON, Stanford University, California.



BOHLMAN AND FINLEY IN CAMP ON A FLOATING TULE ISLAND, DURING THEIR EXPLORATION OF LOWER KLAMATH LAKE, SUMMER OF 1908

# THE CONDOR

An Illustrated Magazine  
of Western Ornithology

Published Bi-Monthly by the Cooper Ornithological Club of California.

JOSEPH GRINNELL, Editor, - Berkeley, Cal.  
W. LEE CHAMBERS, Business Manager, Santa Monica, Cal.

WILLIAM L. FINLEY } Associate Editors  
ROBERT B. ROCKWELL }

Hollywood, California: Published Nov. 25, 1908

## SUBSCRIPTION RATES

One Dollar and Fifty Cents per Year in the United States  
Mexico, and U. S. Colonies, payable in advance

Thirty Cents the single copy.

One Dollar and Seventy-five Cents per Year in all other  
countries in the International Postal Union.

Claims for missing or imperfect numbers should be  
made within thirty days of date of issue.

Subscriptions and Exchanges should be sent to the  
Business Manager.

Manuscripts for publication, and Books and Papers  
for review should be sent to the Editor.

Advertising Rates on application.

## EDITORIAL NOTES

Again it becomes necessary to announce a  
change in the business management of THE  
CONDOR. Mr. Law finds it impossible for him  
to longer attend to the duties of this office,  
and Mr. W. Lee Chambers will henceforth  
take charge of our business affairs. Dues and  
subscriptions should therefore be remitted  
promptly to W. LEE CHAMBERS, SANTA  
MONICA, CALIFORNIA.

For preparing the 1908 Index appended to  
the present issue of THE CONDOR, we have to  
thank Mr. Henry B. Kaeding. The compilation  
of the yearly index is becoming more and  
more of an undertaking as our magazine  
grows. And it relieves the editorial department  
of a large amount of labor when some-  
one outside assumes that part of the work and  
carries it to a satisfactory completion, as in  
the present instance.

*The Birds of Washington*, which Messrs.  
Dawson and Bowles have been working upon  
for the past four years is to go to press the  
first of the year, and finished copies are ex-  
pected by May 1, 1909. This sumptuous work  
will be the most voluminous single publica-  
tion which has yet appeared dealing solely  
with the birds of any part of the West. An  
admirable feature will be the reproductions  
from drawings and paintings by Allan Brooks,  
now conceded to be one of the foremost bird  
artists in the world.

The Ten-year Index is almost finished. Mr.  
Kaeding, who is devoting himself to this task,  
believes it will be ready to go to press by Jan-  
uary 15th next. In our July number we laid  
the matter of financing the Ten-year Index  
before CONDOR readers. We have so far re-  
ceived just two responses to our invitation for  
donations to meet the cost of the publication  
(about \$100). These two replies were accom-  
panied by three dollars, which leaves some \$97  
still to collect! We wonder, after all, just how  
much the Ten-year Index is to be appreciated.  
One man is putting in hundreds of dollars  
worth of time on it, and two or three others  
will be donating their services in large meas-  
ure before the thing is printed. To what ex-  
tent is this undertaking of real importance to  
other Cooper Club members?

Mr. Austin Paul Smith has returned from  
Mexico and is now working with the birds on  
the U. S. side of the lower Rio Grande in the  
vicinity of Brownville, Texas.

Mr. H. E. Wilder, of Riverside, has been  
assisting Mr. H. S. Swarth in exploring the  
Trabuco region of southern California, in the  
interests of the University of California  
Museum.

Mr. William L. Finley of Portland, Oregon,  
left for New York the middle of October, and  
attended the annual meeting of the National  
Association of Audubon Societies on October  
27th. He also attended the meeting of the  
American Ornithologists' Union at Cambridge,  
Mass., commencing November 16th.

Volume X of THE CONDOR consists of over  
250 pages, by far the largest volume of our  
magazine yet issued. We believe the quality  
of the articles composing this volume to have  
never been exceeded. If our constituents ap-  
prove of the efforts which have resulted as  
above, let them signify it by rendering their  
prompt and increased support to Volume XI,  
1909.

## MINUTES OF COOPER CLUB MEETINGS

### NORTHERN DIVISION

SEPTEMBER.—The Northern Division of the  
Cooper Ornithological Club met in the rooms  
of the Oakland Chamber of Commerce on the  
evening of September 12, President D'Evelyn  
in the chair. The minutes of the previous  
meeting were read and approved. Dr. Ella  
Cool Walker, 509 13th and Washington Sts.,  
Oakland, Frank B. Rudolph, 523 10th Street,  
Oakland, Dr. Clarence E. Edwards, Califor-  
nia Promotion Committee, San Francisco,  
and Annie M. Alexander, 1006 16th St., Oak-  
land, were elected to active membership.

Dr. D'Evelyn read a short paper on the kill-  
ing of a flock of swans by being swept over  
the Niagara Falls. The paper was discussed  
by the members present and numerous other  
instances of the same sort were reported.

A very interesting paper was read by Mr.  
Grinnell on the causes of bird migration. After  
the discussion on this paper the meeting ad-  
journed.

H. W. CARRIGER, *Secretary pro tem.*

## SOUTHERN DIVISION

SEPTEMBER.—The September meeting was called to order by Vice-President H. J. Lelande at his office in the City Hall, Los Angeles, Thursday evening, October 1, 1908, with members Henry B. Keading, Loyal Holmes Miller, Howard Robertson, Alphonse and Antonin Jay, Otto Zahn, Pingree I. Osborn, Howard Wright and J. Eugene Law present.

The minutes of the last meeting, June 25, 1908, were read and approved. The application of Luther J. Goldman to reelection to active membership was presented by the Secretary.

A letter was read from Rudolph M. Anderson, who writes from Herschel Island, Northwest Territory, where he was on August 11, 1908, enroute to the more remote Arctic with an expedition sent by the American Museum of Natural History, New York City. He says in part: "I have had a splendid season's collecting, and made a few good photos. Among the sets taken along the line (proceeding northward from Alberta to Great Slave Lake) are Bohemian Wax-wing n-6, Pine Siskin n-3, Blackpoll Warbler n-4, White Pelican (at rookery at the Mountain Portage of Slave River)  $\frac{1}{2}$ ,  $\frac{1}{2}$ ,  $\frac{1}{4}$ , Slate-colored Junco n-4, Montana Junco n-4, Olive-backed Thrush n-3, etc."

"I sent back about one hundred skins from Ft. Norman in July, and have just packed up fifty taken the past month between Ft. McPherson and this place. The latter lot included good series of Snowflakes, Lapland Longspurs, Horned Larks, Savanna Sparrows, both adults in moulting plumage and young in juvenile plumage. Took one specimen of Wheatear or Stone-chat, July 31. Have paid especial attention to juvenal and eclipse plumages.

"An interesting capture was a nest of four young Golden Eagles, just able to fly from nest on August 4th. The nest was on the face of a steep mud cliff near the sea on the west side of Herschel Island. The huskies told me that the eagles have nested there for several years. This may perhaps be near the bird's northern breeding range.

"The Pacific whaling fleet have so far failed to put in their expected appearance and we are short of necessary supplies, principally 'grub', and have consequently been obliged to postpone our projected trip eastward to the Coppermine River country, until next summer, probably. We (Mr. Stefansson and myself) have two good 30-foot whaleboats, staunch sailing craft, have enlisted the services of several 'huskies', and expect to cruise westward along the northwest coast of Alaska, probably starting tomorrow, hoping to find a good wintering place somewhere between Flaxman Island and the mouth of the Colville River. Possibly

we may work westward as far as Point Barrow. At present we have twenty-three dogs with voracious appetites and a great problem is to keep them fed. Fortunately fishing is good. We drew in 78 fair-sized whitefish at one haul of a 30-foot gill net this morning.

"I hope to get west as far as Flaxman Island before the latter part of this month, before the caribou leave the coast. At any rate we shall have some caribou shooting, as well as Alaska mountain sheep, this fall. Both these species are found near the north coast in fair numbers. I do not know whether this letter will get out by some whaler this summer or by the Dawson Patrol next winter."

As a matter of general interest to bird students, a small group of fossil bird bones was exhibited by Mr. Miller of the State Normal School. The specimens were recently found in quaternary deposits of Southern California and represent some large species of water birds.

The distal end of the humerus was shown in comparison to that of the white pelican and a coracoid in comparison with the same bone of the brown pelican. In the former case the fossil form exceeds the recent by a goodly margin, while in the latter case the fossil was double the mass of the recent form. A fragment of the beak of another form was also exhibited which shows, seemingly, relationship with the boathibbed storks.

Mr. Miller is assembling as large a collection of skeletal material of the larger birds as possible for the identification of such fossil remains and made an appeal to Cooper Club members to help in the establishment of such a collection in the community, where it will be at the disposal of all interested in comparative osteology.

The identity of fossils of game birds in fragments or of fragments of sea birds cast on the beach, sometimes becomes a matter of importance. The body bones of the condor and of golden eagles would be exceedingly valuable material for comparison in this special case.

The specimens shown are exceedingly suggestive of the avifauna that at one time existed here. They were found in company with the remains of the saber-toothed tiger, the giant ground sloth, mastodon and the camel. If these beasts once walked the plains about Los Angeles, what might not have been flying above their heads?

Mr. Pingree I. Osborn exhibited a pair of dark-colored Socorro Petrels and a pair of Cassin Auklets, with an egg of the latter, all taken at Coronado Islands, early in the summer. A very black hawk taken near La Jolla, Cal., on Sept. 11, 1908, was shown by Mr. Roth Reynolds. This proved to be the Zone-tailed Hawk. Adjourned.

J. EUGENE LAW, *Secretary.*

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